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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/925,002 | 08/08/2001 | Tom-Chin Chang | JCLA 7428 | 3609 |

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EXAMINER

BAKER, CHARLOTTE M

ART UNIT PAPER NUMBER

2625

DATE MAILED: 04/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/925,002

Applicant(s)

CHANG ET AL.

Examiner

Charlotte M. Baker

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1 and 5-8 is/are allowed.
- 6) ☒ Claim(s) 9-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-5 and 7-16 have been considered but are moot in view of the new ground(s) of rejection. See rejection below.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Taiwan, R.O.C on 06/08/2001. It is noted, however, that applicant has not filed a certified copy of foreign application number 90113920 application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoki (6,559,981) in view of Sakano (4,760,464).

Regarding claim 9: The structural elements of apparatus claim 12 perform all of the steps of method claim 9. Thus, claim 9 is rejected for the same reasons discussed in the rejection of claim 12.

Regarding claim 10: The structural elements of apparatus claim 15 perform all of the steps of method claim 9. Thus, claim 9 is rejected for the same reasons discussed in the rejection of claim 15.

Regarding claim 11: Aoki in view of Sakano satisfy all the elements of claim 9. Aoki further discloses adding a corresponding odd-even compensation value to the even-numbered pixel value and the odd-numbered pixel value (col. 4, ln. 55-67) (col. 6, ln. 21-63) (col. 8, ln. 6-17 and 25-37).

Regarding claim 12: Aoki discloses circuitry adapted to produce an odd-even compensation value (Fig. 3, odd-even correction circuit 4 and col. 4, ln. 52-57) by use of the even-numbered pixel value and the odd-numbered pixel value (pixel data which has been shading corrected, col. 4, ln. 55-57); and circuitry adapted to perform compensation for an even-numbered pixel value and an odd-numbered pixel value (Fig. 3, odd-even correction circuit 4) (col. 4, ln. 49-67) (col. 6, ln. 4-9) obtained from a scanning operation (col. 4, ln. 49-67) (col. 6, ln. 4-9).

Aoki fails to specifically address receiving a shading value as claimed.

Sakano discloses circuitry adapted to receive a shading value (col. 4, ln. 54-56 and col. 6, ln. 14-39) obtained from a compensation procedure (col. 4, ln. 54-56 and col. 6, ln. 14-39) for an even-numbered pixel and an odd-numbered pixel of a scanning device (col. 4, ln. 54-56 and col. 6, ln. 14-39).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to include the shading compensation of Sakano with the shading compensation circuit of Aoki in order to keep the output level of the line image sensor constant as taught by Sakano (col. 1, ln. 32-35).

Regarding claim 13: Aoki in view of Sakano satisfy all the elements of claim 12. Aoki further discloses an image memory unit (Fig. 3, controller 19) adapted to hold a plurality of image data

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values (col. 4, ln. 40-48); and an input/output interface (Fig. 3, interface 25) adapted to access the image data values (col. 4, ln. 40-48).

Regarding claim 14: Aoki in view of Sakano satisfy all the elements of claim 12. Aoki further discloses an alternative-sensing device (Fig. 3, color image pick-up system 1) adapted to perform a plurality of alternate scanned operations (col. 8, ln. 6-17 and 25-37) on a document (Fig. 2, document 16) and sequentially obtain a plurality of values from alternately scanned pixels (col. 8, ln. 25-37); and an analogue/digital converter (Fig. 3, A/D converter 2 and col. 4, ln. 49-67) coupled to the alternative-sensing device (Fig. 3, color image pick-up system 1) adapted to digitize the alternately scanned pixel values in analogue format into even data values and odd data values and transfer the even data values and the odd data values to said circuitry to receive a value (col. 4, ln. 49-54).

Regarding claim 15: Aoki in view of Sakano satisfy all the elements of claim 12. Aoki further discloses circuitry (Fig. 3, color image pick-up system 1) adapted to perform a plurality of alternate scanning operations (col. 8, ln. 6-17 and 25-37) on a document (Fig. 2, document 16) to obtain values corresponding to a plurality of alternately scanned pixels (col. 8, ln. 25-37); and circuitry (Fig. 3, A/D converter 2) adapted to digitize the alternately scanned pixel values into even data values and odd data values (col. 4, ln. 49-67); and circuitry adapted to provide the even data values and the odd data values (Fig. 3, output of shading correction circuit 3) to an application specific integrated circuit (Fig. 3, odd-even correction circuit 4) (Examiner is interpreting the odd-even correction circuit 4 to be an application specific integrated circuit (asic) because this circuit has a specific purpose as outlined in the Aoki reference and the detail is shown in Fig. 1.).

Regarding claim 16: Aoki in view of Sakano satisfy all the elements of claim 12. Aoki further discloses adding a corresponding odd-even compensation value to the even-numbered pixel value and an odd-numbered pixel value obtained from a scanning operation (col. 4, ln. 55-67) (col. 6, ln. 21-63) (col. 8, ln. 6-17 and 25-37) (col. 4, ln. 49-67) (col. 6, ln. 4-9).

Allowable Subject Matter

5. Claims 1-5 and 7-8 are allowed.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charlotte M. Baker whose telephone number is 571-272-7459. The examiner can normally be reached on Monday-Friday 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A. Williams can be reached on 571-272-7471. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER